California Environmental Protection Agency AIR RESOURCES BOARD	DEERE POWER SYSTEMS GROUP OF DEERE & COMPANY	EXECUTIVE ORDER U-R-004-0191 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2004	4JDXL12.5073	12.5	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Smoke Puff Limiter, Electronic Control Module	Loader, Tractor

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
225 ≤ kW < 450	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15	50
		FEL	-	-	5.8	-	0.18	-	-	-
		CERT	-	-	5.5	1.3	0.16	14	6	27

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 23RD day of December 2003.

Allen Lyons, Chief
Mobile Source Operations Division

Engine Model Summary Form

Attachment 1 of 2
U R 004-0191

Manufacturer: **Deere Power Systems Group of Deere and**
Engine category: **Nonroad CI**
EPA Engine Family: **4JDXL12.5073**
Mfr Family Name: **650HF**
Process Code: **New Submission**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
6125HRW16A	6125H	324.53@2100	159.00@2100	112.44@2100	1143.07@1575	230@1575	122.36@1575	EM EC TURBO
6125HRW16B	6125H	421.09@2100	200.00@2100	141.10@2100	1450.59@1575	281@1575	149.48@1575	EM EC TURBO
6125HRW17A	6125H	477.41@2100	230.00@2100	160.94@2100	1649.71@1575	323@1575	171.52@1575	EM EC TURBO
6125HRW17B	6125H	504.23@2100	241.00@2100	169.76@2100	1741.16@1575	338@1575	179.46@1575	EM EC TURBO
6125HRW13A	6125H	324.53@2100	159.00@2100	112.44@2100	1143.07@1575	230@1575	122.36@1575	EM EC TURBO
6125HRW13B	6125H	421.09@2100	200.00@2100	141.10@2100	1450.59@1575	281@1575	149.48@1575	EM EC TURBO
6125HRW15A	6125H	477.41@2100	230.00@2100	160.94@2100	1649.71@1575	323@1575	171.52@1575	EM EC TURBO
6125HRW15B	6125H	504.23@2100	241.00@2100	169.76@2100	1741.16@1575	338@1575	179.46@1575	EM EC TURBO
6125HT001	6125H	354.03@1800	196.00@1800	116.85@1800	1359.89@1300	251@1300	119.05@1300	EM EC TURBO
6125HH003	6125H	421.09@2200	192.30@2200	142.58@2200	1202.81@1600	247.9@1600	133.69@1600	EM EC TURBO
6125HZ012	6125H	464.00@2100	218.00@2100	154.77@2100	1556.79@1575	229@1575	170.42@1575	EM EC TURBO
6125HZ013	6125H	537.75@2100	255.00@2100	180.56@2100	1699.12@1575	335@1575	177.92@1575	EM EC TURBO
6125HZ011	6125H	390.24@2100	187.00@2100	132.72@2100	1309.00@1575	276@1575	146.61@1575	EM EC TURBO
6125HF070V	6125H	600.78@2100	296.00@2100	210.10@2100	1877.59@1500	366@1500	184.75@1500	EM SPL

Engine Model Summary Form

Attachment 2 of 2

U-R-004-0191

anufacturer: **Deere Power Systems Group of Deere and**

ngine category: **Nonroad CI**

PA Engine Family: **4JDXL12.5073**

ltr Family Name: **650HF**

s Code: **Running Change**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
6125HZ012A	6125H	477.41@2100	225.00@2100	157.41@2100	1603.25@1500	321@1500	162.48@1500	EM EGR SPL